

National Aeronautics and  
Space Administration  
  
Langley Research Center  
Hampton, VA 23681-2199



Reply to Attn of: 418

August 9, 2001

TO: 267/Thomas Popernack, Facility Environmental Coordinator  
FROM: 418/Head, Environmental Management Office, OSEM  
SUBJECT: Multimedia Environmental Audit for Building 1236

A multimedia environmental audit of Building 1236 was conducted by the Environmental Management Office (EMO) support contractor, Science Applications International Corporation (SAIC), on July 7, 2001. The multimedia environmental audit revealed no compliance issues so no action is required. The multimedia environmental audit checklist is provided with this letter.

Please feel free to contact one of the auditors or me if you have any questions or comments concerning this multimedia environmental audit.

A handwritten signature in black ink, appearing to read "Robert D. Brown".

Robert D. Brown  
43609

Enclosure

Auditors: Mason Proctor, EMO (4-4232)  
Dave Steigerwald, SAIC (4-8058)  
Cheryl Hawkins, SAIC (4-8757)

cc:  
418/OSEM  
418/EMO  
477/SAIC  
418/K. M. Proctor

477/DSteigerwald:pdi UFI:8800 8-9-01 (4-8058)

## Multimedia Environmental Audit

Building: 1236, National Transonic Facility  
 FEC Name (Org.): Thomas Popernack, RBJ  
 Auditors: Dave Steigerwald, Cheryl Hawkins  
 Inspection Date: 8/7/01  
 Audit Number: 0139

### General Information:

Did the FEC attend mandatory annual training in 2000?  
 Yes

Identify the different processes of the shop/facility.  
 The National Transonic Facility provides high quality test data for various research and development programs.

### Chemical Material Tracking System (CMTS)

List CMTS users: John Stobierski, William Tomek, Frank Beltnic, Thomas Popernack  
 Org Code: RBJ

	Yes	No	Comments
Is there a CMTS inventory?	X		
Is their inventory current?	X		See Conclusion
Are inventories updated quarterly?		X	See Conclusion
Do they have inventory records that do not have MSDSs attached?	X		See Conclusion
Do they regularly use Forms 44?	X		See Conclusion
Are the product containers closed and labeled?	X		
Are the raw material storage areas organized and clean?	X		
The date of the last CMTS log-in that represents inventory changes.	10/18/00		
How does the facility order new products?			
Top Hazardous and Non-Hazardous Materials Used in the Last Year			
Hazardous Material According to CMTS Inventory	Approx. Amount	Process Using Material	
Various Paints	8.30 lbs	Model Build-Up	
Body Filler	6.26 lbs.	Model Build-Up	
Liquid Nitrogen (not in CMTS)	80,000 tons	Test media	
Non-Hazardous Material According to CMTS Inventory	Approx. Amount	Process Using Material	
Terrestic 68 Oil	900 lbs.	Equipment Maintenance	
Silicon Sealant	1.5 lbs.	Model Build-Up	

### Pollution Prevention Program

	Yes	No	Comments
Are there active P2 projects in the facility?	X		Oil Analysis Program, Peanut Reuse Program. Mercury Thermometer Program.
Are there opportunities for P2 projects?		X	

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### Recycling and Affirmative Procurement Program

	Yes	No	Comments
White / Mixed Paper	X		
Cardboard	X		
Toner Cartridges	X		
Mixed Metals	X		
Aluminum	X		
Copper	X		
Does the facility use 30% recycled content paper?	X		
Do they currently purchase any EPA designated items?	X		The list of EPA designated items is attached to the checklist.

### Waste Management

Top 5 Hazardous and Non-Hazardous Waste				
Hazardous Waste	Approx. Amount	Process Generating Waste		
Waste Solvents	1x55 Gallons	Model Build-Up		
Non-Hazardous Waste	Approx. Amount	Process Generating Waste		
Oil	2x55 Gallons	Equipment Maintenance		
Oily Water	2x55 Gallons			
Oily Rags	2x55 Gallons			
Oil Dry / Filters	1x55 Gallon			
		Yes	No	Comments
Are all SAAs identified on EMO master list?		X		
Are the SAAs at or near the point of generation?		X		
Are the SAAs clean?		X		
Have the waste handlers been trained in 2000?		X		
Is the hazardous waste at the SAAs only generated by this facility?		X		
Satellite Accumulation Area #1: Location – Room 122				
Identify the major waste streams: Batteries, Spray Cans				
Are the containers closed?		X		
Are the containers labeled properly?		X		
Are the accumulated quantities of hazardous waste below 55 gallons?		X		
Is spill material present?		X		
Is there a Spill Plan posted?		X		
Is a weekly inspection on file?		X		See Conclusion
Satellite Accumulation Area #2: Location - Room 115				
Identify the major waste streams: Waste Solvents				
Are the containers closed?		X		
Are the containers labeled properly?		X		
Are the accumulated quantities of hazardous waste below 55 gallons?		X		
Is spill material present?		X		
Is there a Spill Plan posted?			X	See Conclusion
Is a weekly inspection on file?		X		See Conclusion

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<b>Satellite Accumulation Area #3: Location: Basement</b>	<b>Yes</b>	<b>No</b>	<b>Comments</b>
Identify the major waste streams: Oil, Oil Dry	X		
Are the containers closed?	X		See Conclusion
Are the containers labeled properly?	X		
Are the accumulated quantities of hazardous waste below 55 gallons?	N/A		
Is spill material present?	X		
Is there a Spill Plan posted?	X		
Is a weekly inspection on file?	X		See Conclusion
<b>Satellite Accumulation Area #4: Location -Outside NE Roll Door</b>			
Identify the major waste streams: Oil, Oil Dry	X		
Are the containers closed?	X		See Conclusion
Are the containers labeled properly?	X		
Are the accumulated quantities of hazardous waste below 55 gallons?	N/A		
Is spill material present?	X		
Is there a Spill Plan posted?	X		
Is a weekly inspection on file?	X		See Conclusion

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### Air Pollution Program

Sources	Number	Usage Rate	Materials	Process Purpose
Boilers	N/A	N/A	N/A	N/A
Furnaces	N/A	N/A	N/A	N/A
Generators	1	As needed	Diesel Fuel	Back-up Power
Paint Booths	N/A	N/A	N/A	N/A
Fume Hoods	N/A	N/A	N/A	N/A
Dust Collectors (will not vent outside)	1	Not Installed	Sand	Cleaning
Parts Washers	N/A	N/A	N/A	N/A
Gasoline Storage Tanks	N/A	N/A	N/A	N/A
Natural Gas Burners	4	As needed	Natural Gas	Used to heat up exhaust when necessary

		Yes	No	Comments / Recommendations
	Are there plans to add, change, modify, or move equipment that would be a potential air emissions source?		X	
	Are there permitted air emissions sources located in the facility? If yes, answer a-f:	X		
a	Is a copy of the air permit posted or available at the premises of the permitted source?	X		
b	Are facility personnel aware of air permit conditions and limits applicable to the permitted air source?	X		
c	Are the following air permit conditions and limits documented: Fuel type and quantity? Process and operational limits? Materials requirements and limits? Hourly operating limits? Emissions limits?	X X X X X		
d	Are good written operating procedures for the permitted air source and air pollution control equipment maintained and available to all operators?	X		
e	Are maintenance schedules for the permitted air source and air pollution control equipment maintained and available to all operators?	X		
f	Have any equipment failures or malfunctions occurred that caused excess emissions for more than one hour?		X	



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### Water Program

	Yes	No	Comments/Recommendations
Are there plans to add, change, modify, or move equipment or processes that would be a potential wastewater discharge source?		X	
Are there any processes that discharge to HRSD (sanitary sewer)? If yes, answer a & b:		X	
a Describe the process discharging to HRSD (include volume/day of discharge if known).	N/A		
b Has the discharge been tested by the EMO? And if so, has the process changed since the test?	N/A		
Are there any processes that discharge to the storm sewer? If yes, answer c & d:	X		
c Describe the process discharging to the storm sewer (include volume/day of discharge if known).	X		Cooling Tower Blow-down.
d Has the discharge been tested by the EMO? And if so, has the process changed since the test?	X		Included on VPDES permit
Are there any drains in the facility that are located near chemical/waste storage areas?	X		
If so, are the drains plugged?	X		

### Underground/Aboveground Storage Tank (UST/AST) Program

	Yes	No	Comments/Recommendations
Are there any USTs/ASTs at your facility that store petroleum and/or petroleum based products? If yes, answer a & b:	X		
a Are you aware of any problems, leaks or repairs that have been done in the last year?		X	
b Are there plans to add, change, modify, or move any tanks in the future?		X	
<b>UST Compliance Questions</b>			
Is leak detection monitoring equipment working properly and records maintained by the facility?	N/A		
Visual inspection of tank(s) and surrounding area.	N/A		
Description of tank(s).	N/A		
<b>AST Compliance Questions</b>			
Visual inspection of tank(s) and surrounding area.	There were no visual signs of spills or leaks in the surrounding area of the tank.		
Description of tank(s).	The facility has one 500-gallon Convault tank that contains No. 2 fuel oil.		

**Conclusion:** The recommendations are described below.

### **Recommendations**

#### **General:**

It is evident that the FEC is committed to conducting all operations in a safe, healthful manner, and operates in compliance with federal, state, and local environmental regulations as well as NASA LaRC's environmental policies. An example of the facilities commitment to environmental stewardship is their involvement in LaRC's Pollution Prevention Program. The facility has implemented several pollution prevention projects such as the oil analysis program, peanut reuse program and the mercury thermometer turn-in initiative.

The FEC indicated that his facility would resolve the environmental issues below in a relatively short period of time.

#### **Waste Management:**

- The Environmental Program Manual, LAPG 8800.1, requires the facility to post a spill plan at the SAA. The spill plan should be specific to the materials being accumulated. Spill plans for SAA's can be generated on the EMO website at <http://osemant1.larc.nasa.gov/cmts/hazwaste/>.
- The Environmental Program Manual, LAPG 8800.1, requires that waste accumulation containers are closed at all times except when adding waste. The facility should ensure the waste containers are closed when their not adding waste to the containers.
- The new Satellite Accumulation Areas (SAA) weekly inspection sheets can be found on the EMO website at <http://osemant1.larc.nasa.gov/cmts/hazwaste/>.

#### **CMTS:**

- The inventory must be maintained to capture the actual method of consumption for inventory items in order to ensure proper record keeping and reporting for the facility.
- The Environmental Program Manual, LAPG 8800.1, requires quarterly certifications be submitted to EMO. E-mail notifications are submitted to CMTS users prior to due date.
- Cylinders and bulk tanks need to be properly entered into CMTS to ensure proper inventory control and reporting. If improperly entered cylinders are indicated on your current inventory, the item can be transferred to a cylinder using the CMTS Inventory Maintenance, Add Cylinder function. The container ID number should begin with a "C" in your inventory to indicate a cylinder has been properly identified.
- The Environmental Program Manual, LAPG 8800.1, requires the facility to submit a Form 44 prior to purchasing hazardous materials. Once the Form 44 is approved and the material is received the facility should add the item to their current CMTS inventory.

#### **Affirmative Procurement:**

- The attached list of EPA designated items should be given to the person responsible for ordering supplies.

## Items That Must Contain Recycled Content for FY01

The quantity and cost for both virgin and recycled content products for each designated item is reported.

### Construction Products:

Building Insulation  
Carpet  
Cement & Concrete Containing Slag  
Cement & Concrete Containing Coal Fly Ash  
Consolidated and Reprocessed Latex Paint  
Floor Tiles  
Patio Blocks  
Shower and Restroom Dividers and Partitions  
Structural Fiberboard  
Laminated Paperwork  
Carpet Backing  
Carpet Cushion  
Flowable Fill  
Railroad Grade Surfaces/Crossings

### Transportation Products:

Channelizers  
Delineators  
Flexible Delineators  
Parking Stops  
Traffic Barricades  
Traffic Cones

### Park and Recreation Products:

Plastic Fencing  
Playground Surfaces  
Running Tracks  
Park and Recreational Furniture  
Playground Equipment

### Landscaping Products:

Garden and Soaker Hoses  
Hydraulic Mulch  
Lawn and Garden Edging  
Yard Trimmings Compost  
Food Waste Compost  
Landscape Timbers and Posts (plastic)

### Miscellaneous Products

Sorbents  
Pallets  
Awards and Plaques  
Industrial Drums  
Mats  
Signage  
Strapping and Stretch Wrap

### Vehicular Products:

Engine Coolants  
Lubricating Oil/Motor Vehicle Oil  
Retread Tires

### Non-Paper Office Products:

Binders (plastic and paper covered)  
Plastic Binders  
Plastic Clipboards  
Plastic Clip Portfolios  
Plastic File Folders  
Plastic Presentation Folders  
Office Recycling Containers  
Office Recycling Receptacles  
Plastic Desktop Accessories  
Plastic Envelopes

### Paper and Paper Products:

Printing and Writing Papers  
Reprographic Paper  
Offset Paper  
Tablet Paper  
Forms Bond  
Envelop Paper  
Cotton Fiber Paper  
Test and Cover Paper  
Supercalendered  
Check Safety Paper  
Coated Printing and Writing Papers  
Coated Printing Paper  
Carbonless  
Bristols  
File Folders  
Dyed Filling Products  
Cards  
Pressboard Report Covers and Binders  
Tags and Tickets  
Newsprint  
Tissue Products  
Bathroom Tissue  
Paper Towels  
Paper Napkins  
Facial Tissues  
Industrial Wipes  
Paperboard and Packaging Products  
Corrugated Containers  
Solid Fiber Boxes  
Folding Cartons  
Industrial Paperboard  
Padded Mailers  
Carrierboard  
Brown Paper